

REMARKS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the remarks herewith, which place the application into condition for allowance.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-95 are pending. No new matter is added.

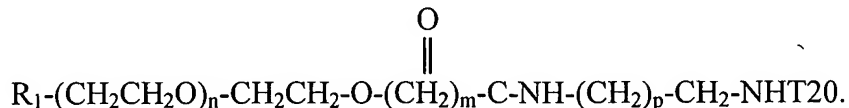
It is submitted that these claims, as originally presented, were in full compliance with the requirements of 35 U.S.C. §112. Further, the remarks presented herein are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, the remarks are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

A Petition for Extension of Time - 1 month - is enclosed. If any additional fee is deemed necessary, authorization is given to charge the amount of any such fee to Deposit Account No. 08-2525.

II. 35 U.S.C. § 103 REJECTION

Claims 1-80, 88 and 89 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,464,933 to Bolognesi et al., the Reddy article and U.S. Patent No. 5,795,569 to Bartley et al. The Examiner believes the combination of select portions of these three documents renders the instant invention obvious. Applicants disagree.

Applicants' invention is directed to, *inter alia*, a compound of formula (I):



None of the cited documents teach, suggest or motivate a skilled artisan to practice the instantly claimed invention.

The Examiner is respectfully reminded that there must be some prior art teaching which would have provided the necessary incentive or motivation for modifying the teachings in the cited documents. *In re Laskowski*, 12 U.S.P.Q. 2d 1397, 1399 (Fed. Cir. 1989); *In re Obukowitz*,

27 U.S.P.Q. 2d 1063 (B.P.A.I. 1993). For a Section 103 rejection to be proper, both the suggestion of the claimed invention and the expectation of success must be founded in the prior art, and not Applicants' disclosure. *In re Dow*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988).

Further, "obvious to try" is not the standard under 35 U.S.C. §103. *In re Fine*, 5 U.S.P.Q. 2d 1596, 1599 (Fed. Cir. 1988). And, as stated by the Court in *In re Fritch*, 23 U.S.P.Q. 2d 1780, 1783-1784 (Fed. Cir. 1992): "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggests the desirability of the modification."

Against this background, none of the cited documents renders Applicants' invention unpatentable. Bolognesi relates to peptides having anti-retroviral activity. The patent, however, fails to teach or suggest the instantly claimed invention having a compound of the formula I. For example, nowhere in Bolognesi is there a disclosure of the pegylated T20 compounds of the invention which covalently link the alpha-amino group of T20 to a polyethylene glycol derivative having the instant particular structure. (Specification at 13).

Alternatively, Applicants' invention is a *selection* invention. Bolognesi alleges, in Tables 1 and 2 of columns 6 and 7, that the T20 peptide may be modified with a broad *genus* of moieties. These moieties include, for example, an amino group, a hydrophobic group, including but not limited to carbobenzoxy, dansyl, or t-butyloxycarbonyl; an acetyl group; Fmoc; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, and carbohydrates. Applicants have unexpectedly discovered, for example, that the pegylated T20 polypeptide having the instantly claimed structure possesses improved performance and pharmacokinetic characteristics. Thus, Applicants' selection invention is patentable.

Faced with the Bolognesi dilemma, the Office Action presents the Bartley patent in an attempt to remedy the defects therein. Bartley relates to megakaryocyte growth and development factors and purportedly teaches an aldehyde as a coupling moiety. The Office Action extrapolates that one skilled in the art would somehow combine Bartley with the T20 protein of Bolognesi in order to practice the instant invention. The Office Action fails, however, to point out where *in either Bolognesi or Bartley* is there the requisite teaching, suggestion or motivating recitation that would lead the skilled artisan to link the two patents together. *In re Laskowski*, 12

U.S.P.Q. 2d 1397, 1399 (Fed. Cir. 1989); *In re Obukowitz*, 27 U.S.P.Q. 2d 1063 (B.P.A.I. 1993). Absent such a disclosure, an obviousness rejection must fail as a matter of law. *In re Fritch*, 23 U.S.P.Q. 2d 1780, 1783-1784 (Fed. Cir. 1992).

Faced with yet another dilemma, the Office Action presents the Reddy article in an effort to link the disparate Bolognesi and Bartley patents. But the link is tenuous and one that a skilled artisan would not make.

More specifically, Reddy is a review article that outlines the advantages *and disadvantages* of injectable drug delivery mechanisms. The Office Action, however, selectively chooses those portions of the Reddy article that relate to the advantages of pegylation, while concomitantly ignoring the disadvantages. For example, Reddy acknowledges that not all pegylated proteins are alike and repeatedly warns that experimentation is required on a protein-by-protein basis. (*See, e.g.*, Abstract at 915). Further, Reddy points out that “a PEG chain that is insufficient to protect the molecule offers no advantage to the parent molecule, while the use of too large a PEG conjugate and too many PEG conjugates attached can result in decreased biologic activity.” (Reddy at 919).

Applying the Reddy article in its entirety—which the Examiner fails to do—a skilled artisan would realize that simply pegylating a protein does not automatically result in a compound having, for example, improved performance and pharmacokinetic characteristics. Thus, the expectation of success is lacking in the combination of Bolognesi, Reddy and Bartley, thereby rendering the obviousness rejection void *ab initio*. *In re Dow*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988).

That is, a skilled artisan would not expect to successfully practice the instantly claimed invention because each of these documents is replete with defects which the others cannot remedy. For example, Bolognesi cites to a genus of N-terminal modifications, but does not teach the instantly disclosed species; Bartley fails to teach or suggest a pegylated T20 protein having an aldehyde; and Reddy can not successfully link the two patents together because Reddy concedes that pegylation has disadvantages.

Even assuming, *arguendo*, that one skilled in the art would combine these three documents, any combination thereof would amount to, at most, an “obvious to try” scenario. The Federal Circuit, however, is clear that “obvious to try” cannot be the basis for rendering an

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invention unpatentable. *In re Fine*, 5 U.S.P.Q. 2d 1596, 1599 (Fed. Cir. 1988). And as "obvious to try" would be the only standard that would lend the Section 103 rejection any viability, the rejection must fail as a matter of law.

Therefore, applying the law to the instant facts, the rejection is fatally defective and should be removed. Accordingly, reconsideration and withdrawal of the Section 103 rejection based on the preceding documents are respectfully requested.

CONCLUSION

In view of the remarks herewith, the application is in condition for allowance. Favorable reconsideration of the application and prompt issuance of a Notice of Allowance are earnestly solicited.

Respectfully submitted,



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